

REMARKS

Claims 1-11 are pending in the application. The Examiner has withdrawn the previous Final Office Action in response to the Appeal Brief. In the presently pending Office Action, the Examiner has rejected Claims 1-5 under 35 USC 102 as anticipated by Sanou; Claim 6 as unpatentable over the combined teachings of Sanou in view of Nakamura; Claim 7 as unpatentable over the combined teachings of Sanou in view of Nakamura and AAPA; Claim 8 as unpatentable over the combined teachings of Sanou in view of Nakamura and Sakamoto; and, Claims 9-11 as unpatentable over the combined teachings of Sanou in view of Dunham. For the reasons set forth below, Applicants believe that the claims are patentable over the cited art.

The primary reference cited is the Sanou patent. Sanou teaches a display device comprising an array of electron-emitting devices which are aligned to fluorescent stripes. Upon application of voltage to the electron-emitting devices, and application of a potential to the fluorescent layer above the array, electrons are directed to the fluorescent layer to cause it to fluoresce. Due to misalignment of the electron-emitting devices and the fluorescent stripes that occurs during manufacturing, the Sanou system provides a way to compensate for positional deviation in order to obtain the best display. Sanou

UK998-026

6

describes the three misalignment problems and the solutions. For Y direction misalignment, as in Fig. 21, no adjustment is needed. For X direction misalignment, Sanou determines the needed correction voltage and applies it to the entire stripe, as illustrated in Fig. 22 and detailed in the cited teachings from Col. 29. For skew, which involves both X and Y misalignment, correction must be provided for each row of devices separately, since the positional deviation varies from one row of devices to the next. For each device, the amount of needed correction is calculated one time and the correction voltage is stored in memory. Each time the device is used, that correction voltage is applied along with the original voltage (determined with a perfectly aligned device in mind).

The cited teachings of Sanou at Col. 29, lines 1-23 teach changing the voltage 87 on the fluorescent material in order to compensate for the misalignment between the material and the corresponding electron-emitting devices. As shown in cited Fig. 24, the voltage from 87, V_a , is provided to the fluorescent layer (see: Col. 28, lines 61-64). Applicants respectfully assert that the cited passages of Sanou do not anticipate the invention as claimed.

It is first to be noted that correcting the voltage based on misalignment is not the same as nor suggestive of providing cut off correction or gain correction. As pointed out to the Examiner in the earlier prosecution of this application, "cut off correction" and "gain correction" are terms of the art and cannot be anticipated by other correction values that are not specifically gain or cut off correction. Further, the Sanou system recalculates the operating voltage for the device and effectively re-sets the operating voltage. Such is not the same as or suggestive of providing cut off or gain correction. Furthermore, Sanou expressly teaches in the cited passage from Col. 29 that the voltage on the fluorescent material is altered. Such teachings neither anticipate nor obviate the claim language wherein cut off correction information is provided to one of the first set of parallel conductors or the second set of parallel conductors. The cited Sanou teachings do not alter the voltage on the "Dy1-Dym" or the "Dx1-Dxn" electron-emitting devices. Rather, Sanou alters the voltage on the fluorescent material which is located opposite to the electron-emitting devices.

Under 35 USC 102, for a patent to anticipate claim language, that patent must teach each and every claim feature. Since the cited teachings of the Sanou patent do not teach means for providing cut off correction information to one of said first or said second plurality of parallel conductors, it cannot be maintained that Sanou anticipates the language of Claims 1-5.

UK998-026

8

Applicants further contend that the additionally-cited patents do not provide the teachings which are missing from the Sanou patent. The Nakamura patent teaches a driving method for an electron beam generation system with image forming apparatus associated therewith. The Nakamura method comprises alternately applying information signals to odd-numbered columns of electrodes while applying cut-off signals to the even-numbered columns of electrodes, and then reversing the process to apply information signals to even-numbered columns of electrodes while applying cut-off signals to the odd-numbered columns of electrodes (see: e.g., Col. 5, line 65 through Col. 6, line 5).

The Nakamura "cut-off" signals comprise non-information signals which are applied to non-selected columns (e.g., the even columns) so that the electrodes (e.g., the odd columns) which are receiving information signals "are not adversely affected by the voltage applied to the adjacent modulation electrodes (see: Col. 5, lines 41-50)." Clearly the non-information signals of Nakamura do not teach or suggest the correction plus drive voltage signals which are being provided to all of the plurality of columns (or rows) under the present invention. Nakamura does not teach or suggest the provision of correction signals and information signals to conductors. In addition, Nakamura does not teach or suggest that all of the plurality of rows or all of the plurality of columns be provided with the same signals.

Applicants believe that one having skill in the art would not

UK998-026

logically modify Sanou with Nakamura, since Sanou seeks to alter the voltage on the fluorescent material.

Nakamura's teaching that a cold cathode is preferable since a hot cathode is affected by temperature does not provide any teachings on how to detect the effects and on how to apply cut off or gain correction voltage to a first or a second set of parallel conductors to compensate for temperature effects during warmup.

Addition of the AAPA teachings of a magnetic matrix would not obviate the invention, since the AAPA also does not teach that correction plus drive voltage signals be provided to all of a plurality of columns (or rows). Since all of the pending claims recite means for providing cut off correction information to all of a first or a second plurality of conductors, Applicants respectfully assert that the claims are not rendered obvious by the combination of the AAPA and the Nakamura patent teachings with the Sanou patent teachings.

Applicants further note that the Nakamura teachings of applying different signals to adjacent conductors (i.e., information signals to the even columns and cut-off signals to the odd columns) would never motivate one skilled in the art to provide multiple signals to a single column, let alone to provide the same multiple signals to all of the conductors in adjacent columns. In fact, Nakamura *teaches away* from such when it states that alternate information and cut-off signals must be applied to

UK998-026

10

adjacent columns in order to avoid the adverse effects of having voltages applied to adjacent conductors (Col. 5, lines 41-50).

With respect to the rejection of Claim 8 based on Sanou, Nakamura and further in view of the teachings of Sakamoto, Applicants note that Sakamoto teaches detecting a voltage drop and then providing a permanent voltage change to compensate for the voltage drop. The Sakamoto patent does not provide the teachings which are missing from Sanou or from the combination of Sanou and Nakamura. Further, Sakamoto's voltage drop detector does not teach or suggest monitoring temperature and temperature effects, let alone teach altering cut off correction and/or gain correction to first or second pluralities of parallel conductors during warm up based on that detecting.

Finally, the Dunham patent has been cited in combination with Sanou in rejecting Claims 9-11. Applicants respectfully assert that the Dunham teachings regarding applying varying voltage levels at an emitting means at the intersection of two conductors do not supply those teachings which are missing from the Sanou patent. Dunham does not teach or suggest means for providing cut off correction information to one of a first or a second plurality of parallel conductors. In fact, Dunham's teachings regarding selectively applying varying voltage would not logically be applied to Sanou since Sanou seeks to alter the voltage on the layer of fluorescent material in order to compensate for the positional deviation of the entire fluorescent

UK998-026

11

stripe relative to multiple devices, and not just for one device. Accordingly, Applicants believe that the two references would not logically be combined; and, that the combination would not result in the claimed invention.

Based on the foregoing remarks, Applicants request withdrawal of the rejections, and issuance of the claims.

Respectfully submitted,
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